

# C<sup>3</sup>V Series....The World Compact + Accurate

## 1U Programmable DC Power Supply

for

Instrumentation and System Integration.

### Description:

C<sup>3</sup>V Series stand for C.C.C.V. abbreviated of constant current constant voltage of a high end DC power supply. Technically speaking, they incorporate 1U mechanism, high efficiency power conversion, post linear regulator, accurate measurement, full programmability and diverse communication interfaces. Commercially speaking, they integrate all about the advantages of the Instrumental power supply and industry-oriented power supply on the market. The high efficiency implemented the 1U low profile while the post linear regulation topology and the accurate measure made them suitable on the laboratory uses. The programmability and communication ability are essential to ATE and any application which needs automatic control and data acquisition.



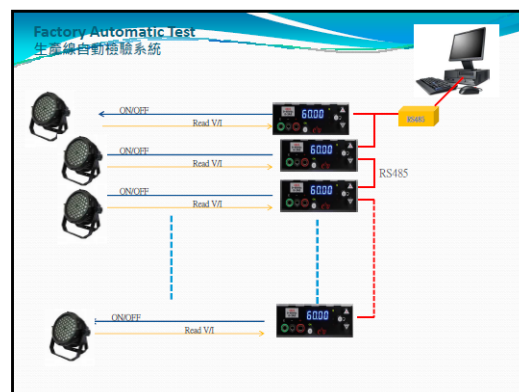
## Features:

- Compact 1Ux100mm design and light weight.
- Post linear regulator topology (LDO) for optimized output.
- Accurate 4-digit measure with voltage tolerance < 0.05%.
- Optional RS232, USB and RS485 interfaces.
- Parallel coms.up to 32 units via RS485.
- Panel calibration system available.
- Perfect for industry automation & remote control.
- Portable, stand alone and in-system versatilities.
- Power factor equates nearly unit.

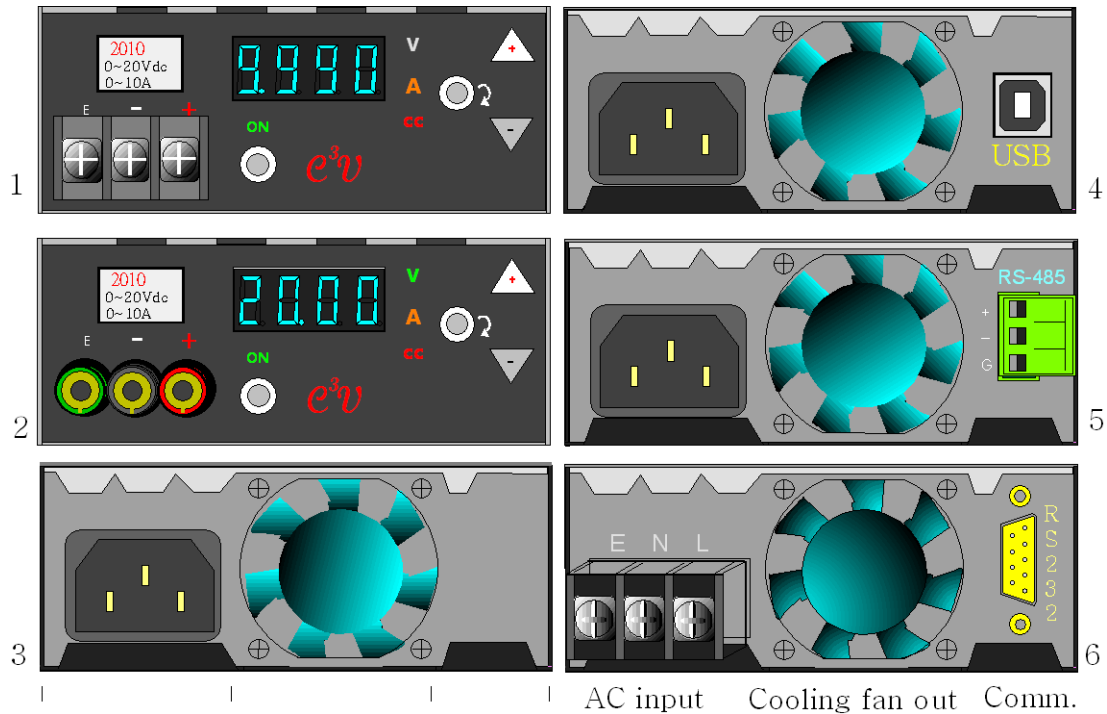
## Applications:

• Personal possession (PP)	• Factory process automation(FA)
• Laboratory uses(LAB)	• Factory automatic test(ATE)
• Education & training(ED)	• Electro- mechanical system(EMS)
• Industrial control(IC)	• Precise battery charger(PCH)
• Lithium battery array charger (LCH)	• Smart home control (SCS)

### Application examples for max. 32 units connection



## Options on front and rear panels:



Model No.	4-digit Display	UP Enter Down			
Terminal Board O/P	O/P ctrl			Cooling Fan	USB-B
Model No.	4-digit Display	UP Enter Down			
Banana Post O/P	O/P ctrl			Cooling Fan	RS-485
IEC Type AC Input	Cooling Fan	w/o comm.		Cooling Fan	RS-232
Terminal Board AC Input				Cooling Fan	

## How to order C<sup>3</sup>V ?

Neutral order code :

C3V-vvii-FT-RT-C

### Options in details:

**vvii:** output ratings

2010: 0~20V, 0~10A

4005: 0~40V, 0~5A

6003: 0~60V, 0~3.5A

**FT:** Front panel output types

tb : terminal board

bn : banana jack

**RT:** Rear panel AC in types

tb : terminal board

ec: IEC type

**C:** Comm types

N: not applied

U: USB, type B

2: RS-232

5: RS-485

For example:

If a “C3V-2010-TB-EC-5” is ordered,  
the real product will be looking as followed:



## Specifications:

<b>C<sup>3</sup>V Series</b>	<b>2010</b>	<b>4005</b>	<b>6003</b>
<b>ELECTRIC</b>			
<b>AC input rating</b>			
Voltage	85~264VAC		
Current	2.4A max./115VAC , 1.2A max./230VAC		
Frequency	47~63Hz		
Inrush	22A max./115VAC , 46A max./230VAC		
power factor	PF>0.95/230VAC , PF>0.99/115VAC		
<b>ELECTRONIC</b>			
<b>DC output rating</b>			
Voltage, Volt	0-20.00V	0-40.00V	0-60.00V
Current, Amp	0-9.990A	0-5.000A	0-3.500A
Power, Watt	200W	200W	210W
<b>Line regulation</b>			
CV, mV	<= 10mV	<= 10mV	<= 10mV
CC, mA	<= 5mA	<= 5mA	<= 5mA
<b>Load regulation</b>			
CV, mV	<= 10mV	<= 10mV	<= 10mV
CC, mA	<= 5mA	<= 5mA	<= 5mA
<b>Ripple / Noise (*1)</b>			
CV p-p, mV	<= 30mV	<= 30mV	<= 30mV
CV rms, mV	<= 10mV	<= 10mV	<= 10mV
CC rms, mA	<= 10mA	<= 10mA	<= 10mA
<b>MEASUREMENT</b>			
<b>Panel setting resolution</b>			
Voltage,mV	10mV	10mV	20mV
Current, mA	5mA	2mA	2mA
<b>Programming resolution</b>			
Voltage, mV	10mV	10mV	20mV
Current, mA	5mA	2mA	2mA
<b>Programming accuracy</b>			
Voltage, %	0.05 % +5 cnt	0.05 % +6 cnt	0.05 % +7 cnt
Current, %	0.2% + 10 cnt	0.1% +8 cnt	0.1% +8 cnt
<b>Measurement resolution</b>			
Voltage, mV	10mV	10mV	20mV

Current, mA	5mA	2mA	2mA
<b>Measurement accuracy</b>			
Voltage, %	0.05 % +5 cnt	0.05 % +6 cnt	0.05 % +7 cnt
Current, %	0.2% + 10 cnt	0.1% +8 cnt	0.1% +8 cnt
<b>Temperature coefficient</b>			
Voltage	0.001%/°C	0.001%/°C	0.001%/°C
Current	0.005%/°C	0.003%/°C	0.003%/°C
<b>PROTECTIONS</b>			
OVP	yes	yes	Yes
OCP	yes	yes	Yes
OTP	yes	yes	Yes
<b>COMMUNICATION</b>			
Interface: only 1 option			
RS232	DB9		
RS485	terminal block		
USB	type-B		
<b>Protocol</b>			
Data rate	57600/N/8/1		
<b>NORMS</b>			
EMC EMISSION	EN61000-3-2,-3		
EMC IMMUNITY	EN61000-4-2,3,4,5,6,8,1		
SAFETY	EN60950-1		
<b>ENVIRONMENT</b>			
Operating temp.	0°C~50 °C		
R.H., no condensed	20%~85%		
Storage temp.	-20°C~70 °C		
R.H., no condensed	<90%		
<b>PHYSICAL</b>			
Dimensions / Weight	W*D*H = 100mm*250mm*40mm(<1U) / 1.2Kg		
*1: From output terminals, running a 25cm twisted wire pair terminated with a 0.1uf CC & 10uF EC, observe voltage across the capacitors under 20 MHz BW at full resistive load.			



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Eof.